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Cervical bronchogenic cyst

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1. Introduction

The first case of the bronchogenic cyst and cervical bronchogenic cyst was reported in 1911 and 1955, respectively. They can be seen in any age group, from newborns to adults, but commonly have been diagnosed in childhood. The incidence rate is 1 in 42,000 to 1 in 68,000 [1]. Extrathoracic bronchogenic is atypical. Suprasternal is the most common site of cervical bronchogenic cyst. They are usually deeply situated, can be adherent to the wall of trachea or esophagus, but have no patent communication with them. They are usually asymptomatic in this area. No specific clinical or radiologic features have been described. So, histopathologic examination for establishing the final diagnosis is required [1,2].

1.1. Case presentation

An 11 years-old girl was admitted to our clinic due to lower left lateral asymptomatic cervical mass enlarging during speaking and Valsalva maneuver. The mass was mobile, non-tender, and non-pulsatile on physical examination. Overlaying skin was intact. There was no complaint such as dysphagia, shortness of breath, pain, fever, erythema, cough, hoarseness or weight loss. Initially, a cervical ultrasound revealed a simple unilocular cystic lesion. Esophageal contrast X-ray indicated an extraluminal compressive effect on the esophagus. For further evaluation, an IV contrast Computed Tomography (CT) scan was done. There was a well-defined cystic lesion in the upper mediastinum and lower cervical, posterior to the trachea, and inferior to the thyroid gland. No adenopathy was detected on ultrasound or CECT. Fig. 1.

The functional thyroid tests were within normal limits. The radiologic findings and the location suggested bronchogenic cyst, thymic cyst or esophageal duplication cyst.

Surgical excision performed through anterior left-sided cervicotomy. Pathology examination confirmed bronchogenic cyst. The postoperative course was uneventful.

2. Discussion

Bronchogenic cysts are congenital cystic lesions of the embryonic ventral foregut. They are most frequently diagnosed in the pediatric population [3]. They are most commonly situated in subcarinal and right paratracheal regions. Supra clavicular neck area is an atypical location. In older children, the mass is frequently asymptomatic and detected incidentally [1]. Furthermore, the clinical presentations depending on size and location. They may be complicated by infection process, rupture, bleeding or have a compressive effect on surrounding structures. Infrequently they may undergo a malignant transformation or caused air embolism in adults. A patent connection to the airways or fistula usually not found [2]. Plain radiography has little diagnostic value for an atypical cervical bronchogenic cyst despite thoracic cases. A CT scan provides better characterization and localization in these cases. They have water attenuation, round or oval shape, well-

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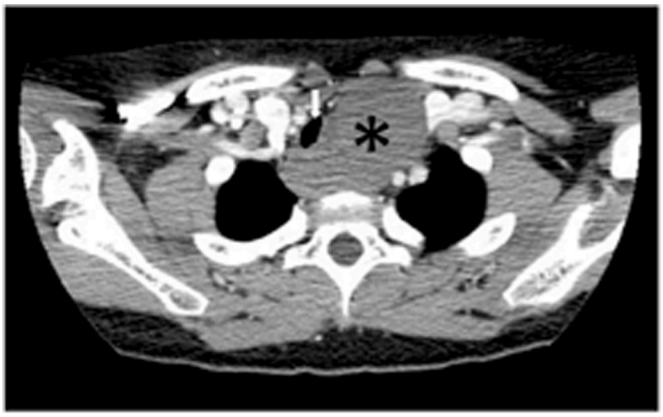

Fig. 1. Axial IV contrast CT scan showing a non-enhancing lesion with water density, posterior to the trachea, and deeply situated in left lower cervical (asterisk). There is a slight right-sided deviation of the trachea due to compressive effect (white arrow).

delineated borders, and homogenous texture. Occasionally, they may have high protein or calcium content [4].

The clinical findings and the radiological features of these cysts resemble many other cervical lesions. The accurate diagnosis is difficult, preoperatively. Branchial cleft cyst, thymic cyst, cystic lesion of the thyroid gland, laryngocele, pharyngocele, lymph node with cystic degeneration, cystic hygroma, and tracheal diverticulum are in the differential diagnosis [2,5].

Once a bronchogenic cyst is suspected, surgical excision should be performed, even in asymptomatic cases. Uncomplicated cervical bronchogenic cysts are easily removed. But there is a chance of adhesion to surrounding structures, especially the great vessels and recurrent laryngeal nerve, in infected cases. The cyst should be completely removed to reduce the risk of recurrence. Usually, no subsequent complication found postoperatively. Because of the chance of malignant alteration, long term follows up is recommended [2,3].

3. Conclusion

We presented an 11 years-old girl with asymptomatic cervical bronchogenic cyst posterior to the trachea. It was easily removed with no subsequent complication.

Patient consent

Consent to publish the case report was not obtained. This report does not contain any personal information that could lead to the identification of the patient.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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